

Amendments to the Claims

~~Sub C27~~. (Currently Amended) A constant velocity joint comprising:

a hollow housing having an opening at one end, an inner face of the housing being provided with three guide grooves extending in a axial direction of the housing and being spaced apart equally in a circumferential direction, each groove having a pair of side faces opposed to each other, extending in the axial direction, and a bottom portion connecting the side faces;

a tripod having three ~~{radially extending}~~ trunnions positioned in the grooves of the housing with each of the trunnions extending radially along a trunnion axis, the trunnions being spaced apart equally in a circumferential direction and having end portions defining partially spherical outer surfaces with a trunnion centerline passing through a center of each of the end portions wherein the trunnion centerline is perpendicular to the trunnion axis; {and mounting respective}

inner rollers mounted to {outside} the end portions of respective trunnions with each of the inner rollers having a partially spherical inner face and a cylindrical outer surface, the inner face of the inner rollers cooperating with the outer surfaces of the trunnions such that the inner rollers may pivot freely on the respective outer surfaces of the trunnions; {, and with respective}

outer rollers ~~{being}~~ mounted {on the} to respective outer {faces} surfaces of the inner rollers through needle bearings, the outer rollers having cylindrical inner surfaces and spherical {the} outer faces, the cylindrical inner surfaces of the outer rollers mating with the respective cylindrical outer surfaces of the inner rollers and the outer faces of the outer rollers mating with the side faces of respective grooves {of the outer rollers being shaped so as to allow movement only in an axial direction of the guide grooves, each of the trunnions having a generally spherical outer face, and each of the inner rollers having a generally spherical outer face, respective generally spherical outer faces of the inner rollers having approximately same dimensions as respective generally spherical outer faces of the trunnions such that respective inner rollers may rotate and pivot freely on respective outer faces of respective outer face of respective trunnions}; and

a ~~{partially}~~ partial cylindrical face {area} formed on each outer surface {face} of

each trunnion with each cylindrical face having a reduced diameter relative to that of the outer surfaces of the trunnions and defining an axis, each cylindrical face inclined relative to [a] both the trunnion centerline and the trunnion axis of each associated trunnion to present and expose the cylindrical face to the respective inner rollers to enable the inner rollers to be installed onto respective trunnions by aligning the inner rollers coaxially with the axes of the cylindrical faces and guiding the inner rollers axially over the reduced diameter of the cylindrical faces into engagement with the trunnions. ~~[passing through a center of the generally spherical outer face of the trunnion perpendicular to a trunnion axis of the trunnion passing through the center of the generally spherical outer face of the trunnion, and being on a face in contact with the inner roller at a joint angle of zero.]~~

2. (Currently Amended) A constant velocity joint according to claim 1, wherein:

a diameter (d) of each ~~[partially]~~ partial cylindrical face ~~[area]~~ provided on each outer ~~[face]~~ surface of each trunnion is related to an inner diameter (D) of each ~~[inner joint]~~ end face ~~[surface]~~ of each inner roller in accordance with the following formula:

$$(d) < (D)$$

$$\text{and } 5^\circ \leq \text{angle}(\theta),$$

wherein the angle(θ) is an angle between the trunnion centerline and [eff] a line connecting between the center of the trunnion and a farthest point, [relative to the trunnion centerline,] an intersection line being an edge line of the ~~[partially]~~ partial cylindrical face ~~[area at an inner side of a joint]~~, the farthest point being on the outer surface of the trunnion at a location where the intersection line is farthest from the center of the trunnion ~~[a center of a joint, on the outer face of the trunnion]~~.

3. (Currently Amended) A constant velocity joint, comprising:

a hollow housing having an open end and an inner face formed with three axially extending circumferentially spaced guide grooves;

a tripod disposed in said housing having three circumferentially spaced trunnions extending radially outwardly along respective trunnion axes into said guide grooves, each trunnion having an outer surface that is ~~[part]~~ at least partially spherical with a

trunnion centerline passing through a center of each of the trunnions wherein the trunnion centerline is perpendicular to each of the respective trunnion axes;

a roller assembly carried on each of said trunnions within said guide grooves and supported for rotation, angular and axial movement relative to said trunnions; and

a cylindrical face ~~{relief area}~~ formed on said outer surface of each of said trunnions having a diameter less than a diameter of said outer surface with said cylindrical face inclined relative to {each of} both said respective trunnion axes and said respective trunnion centerlines to present and expose the reduced diameter of the cylindrical face such that the roller assembly can be inserted onto the respective trunnion about the inclined cylindrical face.

320
(amended)
4. (Currently Amended) The constant velocity joint of claim {1} 3 wherein each of said cylindrical faces ~~{areas}~~ has a predetermined diameter and said roller assemblies each have ~~{an inner end}~~ a diameter ~~{equal to or greater than that of}~~ sized relative to said diameter of said cylindrical face {area} such that each of said roller assemblies can be installed onto said respective trunnions along said inclinations of said cylindrical faces.

5. (Currently Amended) The constant velocity joint of claim {1} 3 wherein each of said trunnions includes a trunnion centerline perpendicular to said trunnion axis, said cylindrical face also ~~{relief area}~~ being inclined relative to said trunnion centerline.

6. (Withdrawn) A method of installing a roller assembly of a tripod constant velocity joint on a trunnion of the joint having a part spherical outer surface and a trunnion axis, comprising:

forming a cylindrical relief area on the outer surface inclined at an angle relative to the trunnion axis; and

aligning the roller assembly angularly with the cylindrical relief area and guiding the roller assembly over the cylindrical relief area onto the trunnion.

Please add the following new claims;

341
Sub 427 7. (New) A constant velocity joint according to claim 1 wherein the spherical end

portions of each of the trunnions includes a contact surface area engaging the spherical inner face of the inner roller and wherein the cylindrical face formed on the outer surface of each trunnion does not intersect the contact surface area on each trunnion.

B₁
(amended)

8. (New) The constant velocity joint of claim 3 wherein the outer surface of each of the trunnions includes a contact surface area engaging an inner face of the roller assembly and wherein the cylindrical face formed on the outer surface of each trunnion does not intersect the contact surface area on each trunnion.